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# Evaluation of 7<sup>th</sup> grade mathematics teachers' guide book along with the teacher opinions

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## Abstract

In Turkey, 7th grade math teachers' guide books which prepared in consideration of new concepts will be evaluated according to the elementary math curriculum of the 2006-2007 academic year. This study aims at determining to what extent the book matches the curriculum principles and approaches, how the approaches are adopted and how beneficial the book is. The study was carried out in different cities of Turkey by selecting randomly 10 secondary level math teachers. These teachers were objected to semi-structured interviews. The study demonstrated that all 10 teachers were positively agreed with using teacher's guide book and they all believed that the book's content should be revised.

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**Keywords:** Teacher's guide book; teacher's opinions; maths curriculum.

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## 1. Introduction

Constructivist approach, having been implemented in 2005, has changed our available curriculums inevitably with its new curriculums and applications and started to be used in our education system. Only with a qualified curriculum a teaching process can reach its targets (Buldan, 2005). The new approach aiming to increase the quantity and quality of our education system has brought dramatic changes to the perspective of system on teachers and students. In the implementation of the new curriculum, the teachers are expected to: be guiding for students, who organize activities, prepare appropriate classroom settings for the lesson, and help students to think instead of directly presenting the ideas on the board (MEB, 2000). Additionally, being parallel with the curriculum components, textbooks remain as one of the most commonly used materials for lessons (Seven, 2001). On the other hand for an effective lesson as well as textbooks and supplementary books, scientific facts, compatibility with language and expression, consideration of design principles and structural features, appropriately used visual instructional materials and a good physical appearance have to be provided. One of the effective instructional materials that can be used as a guide for students in using the textbooks more effectively and making significant contributions for teachers to carry out their responsibilities more regularly is teacher's guide book. Turkish Ministry of National Education defines guide books as "Published works prepared for teachers to make use of the textbooks more efficiently by including various examples, exercises, web sites of the units taught, reading resources and other activities in relation to the targets and explanations of related curriculums" (Communiques Journal, 2004).

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Math teacher's guide books started to be used for the first time in 2005-2006 academic year by Turkish Ministry of National Education. Teacher's guide books play a great role with its target and content in a period that multidimensional changes in a new understanding of learning, curriculums and textbooks, the characteristics of intraclass teaching, the process of measurement and evaluation take place. Teacher's guide books are crucially important for telling teacher, who has very certain teaching understanding and habits, about the qualifications and frames of the change (Kabapınar, 2006). Teacher's guide books provides the process of teaching units, pages of the textbook & workbook and titles for warm-up, acquisition, application and evaluation processes. Likewise, a teacher's guide book includes some general advices, application procedures, method suggestions and problem solvings for teachers (Ceyhan, 2004). A good teacher's guide book can direct all instruction process from planning to the evaluation of a course (Kılıç, 2002).

## 2. Method

As this study is based on the math teachers' views, it is a descriptive research. Interview method has been used as of the qualitative research methods. The data has been collected by semi-structured interviews.

### 2.1. Participants

The sample of this research includes randomly chosen grade 7 teachers in Turkey. First of all, randomly chosen 10 teachers from different schools were informed about the research scope and objectives, then semi-structured interview was conducted with them. These interviews were held in October and November, 2009. The teachers who were addressed the interview questions were coded as T1,T2,T3...The teachers coded T1, T2, T3, T4 have master degree on their profession and the one coded as T5 has doctorate degree. This educational level has influenced the timing of the interviews and as they gave more detailed information, the interviews with teachers T1, T2, T3, T4,T5 was longer than those 5 teachers who don't have a graduate degree. The interviews lasted between 40-60 minutes in average. Before the interviews, teachers were asked whether they use teacher's guide book and all the participants replied: "I use".

Table 1.Demographic Information of the Participant Teachers

Teacher	Gender	Education	Place of School	Inservice Training
T1	F	Faculty of Education/Ms	Eskişehir	✓
T2	F	Faculty of Education/Ms	Eskişehir	✓
T3	F	Faculty of Education/Ms	İzmit	✓
T4	F	Faculty of Education/Ms	İstanbul	✓
T5	F	Faculty of Education/Phd	İstanbul	✓
T6	F	Faculty of Education	Bursa	✓
T7	F	Faculty of Education	Eskişehir	x
T8	M	Faculty of Education	İstanbul	✓
T9	M	Faculty of Education	Kütahya	✓
T10	M	Faculty of Education	Eskişehir	✓

### 2.2. Data collection

For data collection, a semi-structured questionnaire of 13 questions has been prepared and scope validity has been confirmed by making the necessary corrections with the help of two curriculum development experts. Then, the data has been collected by applying this semi-structured question form to the selected teachers.

### 2.3. Data analysis and evaluation

Data analysis has been applied by coding the data, forming the themes, organizing and describing data according to the codes, and interpreting the results following this order.

### 3. Results (Findings)

The data collected at the end of the research has been analyzed and the findings are stated by categorizing according to the components in the textbooks.

#### 3.1. Compliance with the curriculum

The guide books should comply with the curriculum in terms of objectives and approaches as well as the content. Regarding the activities that should be prepared and applied according to the educational objectives, the teachers have been addressed the first interview question: *“What is your opinion on the appropriateness of the titles and subtitles of the guidance book to the curriculum?”* and findings revealed that the teachers T7 and T9 have never read the curriculum so they did not want to comment on this question. The teacher T5 made a negative comment: *“Especially, some subjects that need preparation are not stated in sequence and there are some other different subjects between which makes it very difficult to learn the newly taught subjects. Furthermore, as the basic concepts are not stated at the beginning, it becomes very difficult to teach some subjects”*.

The other seven teachers disagreed with teacher T5 instead and stated that the titles and subtitles have been put in a correct order appropriate with the targets and the results of the curriculum. Secondly, in the scope of appropriateness of curriculum *“What is your opinion on the activities related to achievements in the guidance book considering students development levels and individual differences?”* To this question, all teachers answered that the curriculum does not provide appropriate achievements for students' development level and individual differences. Each emphasized that there is a big gap between the students' learning levels in the classrooms, and unsuccessful students do not participate the activities. Most of the activities in the book can not be applied in lower levels. Teachers T1, T2, T3 and T4 also stated that *“ Although it is said that the activities comply with the constructivist learning approach, they are not very appropriate for this approach indeed”*.

#### 3.2. Scientific content

This part is used to help teachers to get prepared for the unit and be aware of the goal so that they can arouse students attention and do the activities accordingly. Considering teachers' opinions on the activities and the phases for the application of the activities as well as the methods and technics used for curriculum have been evaluated to see whether they meet the requirements of the educational conditions dimension. In this context, a question goes as follows: *“ What is your opinion on the applicability of the activities in the guidance book?”*. Almost all teachers agreed on the point that activities are applicable and beneficial for the achievements however, all of the 10 teachers admit that they face with some difficulties especially such as the limited time allocated for the activities. Teacher T2 explains this situation as: *“We do not have sufficient time, there are too many activities. For instance, there are some exercises that are not published on the textbooks but on the guidance book and those on the guidance book are much better than the former most of the time. I prefer to use the exercises on the guidance book. Moreover, visual elements of the exercises are very good because there are abstract ideas in math most of the time. Thus, the activities prepared are very useful to make those concepts more concrete and it leads us in a better way. The number of the activities has to be declined for sure.”* Teacher T3 says: *“ I dont think that the activities are very applicable because most them require some other materials. Our students do have some financial difficulties and at school we do not have the necessary materials as well. For instance, there is an activity for stamp counts. My students do not even know what they are and although I find this kind of activities useful, I can not carry it out in the classroom yet. I would also like to say that the experts who prepare these guidance books need to be very careful about timing”*. The other teachers also agreed on the timing problem for the applicability of the activities. As a second question, *“What do you think about the appropriateness of the teaching methods and technics used in the guidance book for both teachers and students?”* has been asked and these findings were received in turn. Teacher T5 said that: *“Many methods and technic can not be used due to limited time. The level of some methods is too high for student”*. Teacher T1: *“There are many students in the classrooms and it is difficult to apply discussion method as every student want to say something and if I give them this chance there is no time left for the subject”*. Teacher T10: *“As more subjects are covered I can see that their ideas have changes compared to the past. They want to express their opinions no matter right or wrong when you ask a new question. This is something good for them. If the level of class is high enough, methods and technics are very successful”*. The other seven teachers, as they can

not apply those methods and technics much, find it hard to apply due to timing and a large number of students in a classroom. As it is seen, teachers find the methods and technics applicable but they also complain due to limited time and number of the students in classrooms as it is pretty hard to implement activities in real classroom settings. As the third question; *“What do you think about the preparation and explanatory notes of the methods and technics used in the guide book?”* was asked, teachers stated that there are not any explanations regarding methods and technics used in the book and implementing activities just depends on teacher’s knowledge. While they would prefer some explanatory notes, its absence is not a big problem. On the other hand, one of the teachers has admitted that he/she does not look at the methods and technics but he/she decided by herself.

Fourthly, to the question of; *“Do you think the activities in the guidance book help students not memorize the knowledge?”* Teacher T7 responded: *“Students may not learn by heart any information by this way but it still does not prevent the acquisition of knowledge thus, we have to use some other resources”*. Teachers T1,T2,T3,T4,T5 think that students do not learn by heart anymore but they do not re-construct information completely like constructivist approach requires. The fifth question is: *“What is your opinion on the guide book that is prepared for supporting the cooperative learning between teachers and students?”*. Teachers T1,T2,T3,T4,T5 emphasized the fact that most of the activities are student-centered and individualistic, only a few of them really require cooperative works. On the other hand, the rest of teachers think that the activities are cooperative.

### 2.3. Measurement and evaluation

In this context, opinions on to what extent students have benefited from the achievements and whether teacher could achieve this with the help of alternative measurement and evaluation approaches have been analysed. Within this scope, firstly, *“What is your opinion on the guidance book in terms of measurement and evaluation and if it can meet the expectations of teachers?”* and teacher T6 has answered as *“I do not find it efficient in terms of measure and evaluation but it can be used as a supplementary book”* and the other T1,T2,T3,T4,T5 think that there are sufficient alternative assesment and evaluation methods but as teachers are not very knowledgable about it they can not use it efficiently. Teacher T4 gave a detailed answer: *“The project tasks at the end of each unit is unnecessary because we want to ask our students to complete one project task in one semester and asking students to prepare projects for each unit will be a waste of time. For unit evaluation, there should be performance homeworks instead of projects. Furthermore, we use written examinations and multiple choice tests, too. To give an example and show a scope, there should be an interm test every semester as well as some final test samples with the achievements written next to the questions.”* Secondly, *“What do you think about the time allocated for extracurricular activities when applying the activities and assesment-evaluations in the teachers guidance book?”* question was asked and teacher T1: *“Although I spent a lot of time to understand and use new alternative assesment materials later it just took some time to read and make assesments for me. Nevertheless, I belive that new assesment materials measure students knowledge much better”* and all the other teachers think differently. They complain about the time they spend for extracurricular activities and that they can not understand new assesment means very well. In addition, teachers T2, T3, T4, T5, T7 said that assesment and evaluation activities are easier compared to SBS which makes use of determinig the level of secondary schools’ students and remain insufficient. They request from the experts to prepare these activites to provide equivalent questions with SBS.

### 2.4. Language and expression

The teachers’ guide book have to be clear to guide teachers appropriately. Language and expression also need to be easy so that all teachers’ reading the book can give the same meaning. In this context, first of all: *“What is your opinion on language and expression of the guide book?”* question was asked and almost all teachers have agreed that language and expression of the books are simple and easy to understand but there is no need to make a story of it for expression. Teacher T5: *“Although there are no serious problems about language and expression, there are some titles not published at the beginning of the book. These books should be picked after the publication”*.

## 2.5. Supplementary materials

There are some materials used for several activities in the guidance books. It is important for those materials to be appropriate with the activities and easily accessible. Thus, teachers are asked: *“What do you think about the appropriateness of the materials suggested in the book and its efficiency for developing students’ skills?”* and significant differences in responses of the participants have been received. Of all 6 teachers, those who live in the city centers stated that they could find materials convenient for the activities and easy accessible. However, those who work in towns and villages can not access to the materials and because they can not insist their students to buy those materials, they could not do those activities. The teachers who use those materials in their classrooms do not think that it contributes to the socialization of their students. The materials are usually used individually and these materials are not convenient for using cooperatively. The teachers who do not use materials could not make a comment on their students’ socialization.

## 2.6. Other issues

Apart from these five categories, teachers were asked two more questions. The first of these questions was: *“Do you think that guidance book, textbook and workbook are a complete set or not?”*. According to teachers’ views on this issue, all these three books complement each other and comply with each other. The other second and last questions was that: *“What do you about the advantages and disadvantages of the guidance books when compare it to the past year and is there anything else you would like to say about the books?”* Some of the ideas by teachers are Teacher T1: *“Without the guidance books it would be very difficult apply changing curriculums and new understandings. Although I received in-service training, I could not learn much. Even though they have some deficiencies, the guidance books make it easier to do a lesson”*. Apart from teacher T7, all the others have agreed that guidance book has been very beneficial and they can instruct more efficiently by obeying the rules despite its deficiencies and wrongs. On the other hand, teacher T7 has explained that *“We can do without the guide books but it if it is going to be, it should certainly include lesson subjects and explanations as well.”* In general, all teachers agreed on the point that they don’t want to look at the supplementary resources for lecturing and thus the guidance book has better to have some parts for lecturing. No reply has been received from the teachers regarding disadvantages code.

## 4. Discussion

When analyzing the opinions of teachers, the results are found to be not dependant on the sex or the position of teachers, but the application of the activities-educational conditions-vary according to the place of school mostly. Furthermore, teacher T7 is a graduate of an educational institute and his ideas sometimes differ a lot from the other teachers. Also, meaningful differences between teachers who have a graduate degree and those who have an undergraduate degree have been observed when answering the questions. In this regard, another research can be carried out to find out how teachers who have master degree or do doctorate use guide books. Thus, samples in another research can be grouped and the impact of the schools that they graduate from can be examined. In general, most of the teachers have mentioned the deficiency of lecturing in the guidance book. For instance, teacher T2: *“The book is good for guidance but there are some statements to mention some points and not to mention the others. It is not very clear to what extent teacher should mention the points of the subject and there should certainly be detailed information on the subjects. Me and my other teacher friends use other resources for lecturing”*.

## 5. Conclusion and recommendation

As a result, this research demonstrates that while all teachers find the guidance books applicable and useful, they think that these books need a lot of corrections. Considering teachers’ opinions, it is seen that they complain about the time allocated for the activities most. Some information deficiencies have been found in terms of the

appropriateness of the guidance book to the curriculum. That is why, adding curriculums to the guide books is among the suggestions.

- Elementary School Mathematics 7th grade Teacher's Guidance Book should be re-arranged considering the needs of teachers.
- In order to implement the activities in the Elementary School Mathematics 7th Grade Teacher's Guidance Book, materials should be provided to schools and parents should also be informed about that.
- For the applicability of the activities, the number of the students in the classroom should not exceed 22.
- Teachers should be informed about assesment and evaluation means in the Elementary School Mathematics 7th Grade Teacher's Guidance Book.
- 7th Grade Maths Curricula should be added to Elementary School Mathematics 7th Grade Teacher's Guidance Book and lecturing should also be provided.

## References

- Buldan, İ. & Aktürk, E. & Aytaç, S. (2005) Uygulanan Sosyal Bilgiler Programında Öğretmen Yaklaşımları ve Yeni Programdan Beklentiler, *Proceeding of II.Sosyal Bilimler Eğitimi Kongresi*, II.Sosyal Bilimler Eğitimi Kongresi, 28-30 May, Proceedings, Van.
- Ceyhan, E. & Yiğit, B. (2004) *Konu Alanı Ders Kitabı İncelemesi*, Anı Yayıncılık, Ankara.
- Kabapınar, Y. (2006) *Yeni Öğrenme Anlayışının Işığında Sosyal Bilgiler Ders Kitapları*, Hayat Bilgisi ve Sosyal Bilgiler Öğretimi, Öztürk Cemil (Ed.) Pegem Ankara
- Kılıç, A. & Seven, S. (2002) *Konu Alanı Ders Kitabı İncelemesi*, Pegem A Yayıncılık, Ankara.
- MEB, (2000) *İlköğretim Okulu Fen Bilgisi Dersi Öğretim Programı*. Milli Eğitim Basımevi. Ankara.
- Öztürk, C. & Karabacak Z. & Öğrenir L. & Dayı F. & Baştürk K. & Ersoy K. & Günday İ. (2005) *Sosyal Bilgiler Öğretmen Kılavuz Kitabı*, Sürat Yayınları, İstanbul
- Seven, S. (2001) İlköğretim Sosyal Bilgiler Ders Kitapları Hakkında Öğretmen ve Öğrenci Görüşleri. Yayınlanmamış yüksek Lisans Tezi, Celal Bayar Üniversitesi Sosyal Bilimler Enstitüsü, Manisa.
- Sezgin, İ. (2004) Türkiyede mesleki ve teknik eğitimde öğretmen eğitimi. *International Coference on VET Teacher Training*. January 22-23 2004. Mesut Matbacılık, Ankara.
- Yıldırım A., Şimşek H. (2006) *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* 5.Baskı Ankara, Seçkin Yayınları